CAP Category: Uncertainty Reduction Studies				
BASELINE ACTIVITY: CB-17(1) – Phytoplankton species toxicity and prevalence **Region of Applicability:** South bay and bay-wide (Linkage to CB-17(4) toxicity bioassays, CB-18(3) copper speciation, CB-18(4) competing metals uptake) **Linkage to Copper Reduction:** Ambient concentrations could influence certain phytoplankton species composition, prevalence, and distribution **Performance Measure(s):** Ambient concentrations of sensitive phytoplankton.				
Lead Party	**Reports**	**Actions**	**Effectiveness Evaluation**	**Future Actions**
FY 2004 – 2005		**PROPOSED WORKPLAN TASKS**		
SCVURPPP with transition to RMP reporting to SCVURPPP	Semi-annually	Work with RMP/SFEI to complete web-based project to track and view results of bay-wide phytoplankton monitoring, toxicity, and other copper impairment uncertainty reduction related research. Identify how to integrate into existing RMP programs/budget or identify other candidate funding sources. Target completion December 2004.	SCVURPPP will continue to provide limited seed money and in-kind assistance to RMP/SFEI to complete the project in CY 2004. Stakeholders need to identify project priority and level of support.	Solicit support from RMP member agencies for funding after CY 2004.
USGS with SCVURPPP to track pending transition to RMP		Follow-up again with RMP and USGS Jim Cloern to confirm identify USGS's plans and schedule for compiling and reporting on historic bay-wide species composition and abundance information.	Depends on USGS making data available.	Work may require new or redirected funding for USGS.
FY 2003-2004		**Actions Accomplished in Period**		
SCVURPPP	Annual	Signed contract with RMP/SFEI and began work to develop and implement a web-based approach to track and view results of bay-wide phytoplankton monitoring and toxicity related research	SCVURPPP provided limited seed money and in-kind assistance to RMP/SFEI to initiate the project.	Presented approach at CAP/NAP and Cu/Ni SSO meetings.
SCVURPPP to track pending proposed transition to RMP		Coordinated with RMP staff to find additional information on Jim Cloern's plans and schedule for compiling and reporting on historic bay-wide species composition and abundance information.	USGS does not routinely analyze for small cyanobacteria	Work may require funding.

Lead Party	Reports	Actions	Effectiveness Evaluation	Future Actions
FY 2003 – 2004		**PROPOSED WORKPLAN TASKS**		
SCVURPPP with transition to RMP reporting annually to SCVURPPP	Annually	Work with RMP/SFEI to develop approach to track and view results of bay-wide phytoplankton monitoring and toxicity related research. Identify how to integrate into existing RMP programs/budget or identify other candidate funding sources. Target implementation during 2004.	SCVURPPP will provide limited seed money and in-kind assistance to RMP/SFEI to initiate the project. Stakeholders need to identify project priority and level of support.	Present approach and solicit support from RMP member agencies
USGS with SCVURPPP to track pending proposed transition to RMP		Coordinate with USGS Jim Cloern to identify plans and schedule for compiling and reporting on historic bay-wide species composition and abundance information.		Work may require funding.
FY 2002-2003		**Actions Accomplished in Period**		
City of San Jose	Dec. 2002 RTC semi-annual progress report; Draft Phase I Rpt.	RTC semi-annual report completed for Dec 2002. Feb 2003 cruise conducted. Preliminary Phase I sampling concluded. Historic data compiled into database. Draft Phase I report produced and submitted to Technical Advisory Group. TAG meeting 5/8/03. Project success constrained by lack of access to historic USGS data.	Marginal success due to limited access of USGS historical data set. However, recent monitoring demonstrates sensitive phytoplankton groups thriving in South Bay environs.	None. Project concluded.
City of San Jose	April and June 2002 RTC semi-annual progress reports	TAG meeting held 9/19/02. Phase I phytoplankton, zooplankton and related water quality reported for 8/23/01, 12/10/01, 2/22/02, 5/17/02, 8/28/02, and 12/2/02 samplings. Substantial variability in species composition and abundance. Cyanobacteria concentrations were similar to previously published values measured during 1998.	To be determined. Depends on ability to link phyto- and zoo-plankton community composition and abundance and possible covariance with water quality conditions, including contaminants.	Plankton speciation and abundance is bay-wide issue. Identify approach to transition to bay-wide effort.

Lead Party	Reports	Actions	Effectiveness Evaluation	Future Actions
Central Valley RWQCB Tracked by SCVURPPP	Aug. and Sep. 2002 reports	Central Valley RWQCB published results of two CALFED funded studies to identify the causes of algae toxicity in the Sacramento and San Joaquin River Watersheds and the Delta titled "*Algae Toxicity Study Monitoring Results: 2000-2001*" and "*Identification of Causes of Algal Toxicity in Sacramento-San Joaquin Delta*." Efforts focused on improving standard toxicity identification evaluation (TIE) methods for use in algae toxicity tests. Analyses focused on organics. Diuron was primary toxicant identified.	To be determined. Depends on success of development of TIE methodologies that can accurately differentiate and assess impacts of water column copper concentrations on algae.	Report recommended agencies establish regional center for analytical support of TIEs aimed at identification of causes of ambient toxicity
San Jose Tracked and encouraged by San Jose	Draft and Final Reports	Work initiated in August 2001 by Romberg Tiburon Center (RTC) under contract to City of San Jose. RTC is conducting bioassessment study in lower South Bay to cooperatively develop, with academic and regulatory communities, bioassessment techniques that could lead to site-specific environmental indicators for the South Bay. Two years of quarterly sampling off Calaveres Point.	To be determined. Phase I Preliminary Historic Data Analysis and Sampling draft report April 2003; final report June 2003. Phase II Pilot Study draft report due April 2005 and final report due June 2005.	Evaluate potential of establishing plankton indicators of change in the South SF Bay.